



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,635	11/05/2002	Israel Morejon	1413.03	5964

21901 7590 03/12/2003

SMITH & HOPEN PA
15950 BAY VISTA DRIVE
SUITE 220
CLEARWATER, FL 33760

EXAMINER

TRAN, KHAI

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,635

Applicant(s)

MOREJON ET AL.

Examiner

KHAI TRAN

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 12-23, 30-33, 37 and 41-52 is/are rejected.
- 7) ☒ Claim(s) 5-7, 9-11, 24-29, 34-36, 38-40 and 53-58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2631

DETAILED ACTION

1. The preliminary amendment A filed 11/20/02 has been entered. Claims 1-58 are pending in this Office action.

Claim Objections

2. Claims 1-58 are objected to because of the following informalities:

The claims of this application contain brackets as shown at the beginning of the claims (i.e [c1], [c2] ...) because the brackets in the claims indicate "delete". Therefore, the brackets should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 12-16, 17-23, 41-45, 46-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12, 17, 41, 46, the claims are narrative in form and do not positively recited steps of a specific process. Note that method claims should set forth a series of steps in the active tense in an instruction like manner thereby reciting an actual method. Dependent claims should further limit base claims by reciting additional steps in a like-

Art Unit: 2631

wise fashion *Exparte Erlicks* 3USPQ2d 1011 at 1017 [7]. Furthermore, the structure in the claims must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence from only. Note the format of the claims in the patents cited.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2631

5. Claims 1-4, 8, 12-13, 17-20, 30-33, 37, 41, 42, 46, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strait (U.S. Pat. 6,438,186) in view of Fertner (U.S. Pat. 6,185,251).

Regarding claims 1-4, Strait discloses an improved initialization method for a communication system comprising the steps of: estimating a timing offset utilizing an entire received DTM frame (col. 3, line 36 to col. 4, line 26). Strait fails to disclose a step of estimating a channel impulse response utilizing at least one pilot tone, wherein the received DMT frame further comprises that a least one pilot tone.

Regarding claim 8, Fertner discloses the step of estimating the channel impulse response utilizing a maximum mean-square error (MMSE) criterion through the pilot tones (col. 14, lines 19-49).

Fertner discloses a step of estimating a channel impulse response utilizing at least one pilot tone, wherein the received DMT frame further comprises that a least one pilot tone (see abstract, and col. 2, lines 24-57). It would have been obvious to one having ordinary skill in the art at the time the invention was made to estimate the channel impulse response from a receiver as taught by Fertner into the teachings of Strait in order to adjust on the basis of measurements of a channel's characteristics.

Claims 12-13 are similar to claim 1. Therefore, claims 12-13 are rejected under a similar rationale.

Claims 17-20 are similar to claims 1, 3-4 and 8. Therefore, claims 17-20 are rejected under a similar rationale.

Art Unit: 2631

Claims 30-33 are similar to claims 1-4. Therefore, claims 30-33 are rejected under a similar rationale.

Claim 37 is similar to claim 8. Therefore, claim 37 is rejected under a similar rationale.

Claim 41 is similar to claim 1. Therefore, claim 41 is rejected under a similar rationale.

Claim 42 is similar to claim 3. Therefore, claim 42 is rejected under a similar rationale.

Claim 46 is similar to claim 17. Therefore, claim 46 is rejected under a similar rationale.

Claims 47-49 are similar to claims 3-4, 8. Therefore, claims 47-49 are rejected under a similar rationale.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aslanis et al (U.S. Pat. 5,901,180) disclose a frame synchronization in multicarrier transmission systems.

Aslanis et al (U.S. Pat. 6,359,933) disclose a frame synchronization in multicarrier transmission systems.

Art Unit: 2631

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

or:

(703) 308-6743, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **Khai Tran** whose telephone number is **(703) 305-1876**.
The examiner can normally be reached on Monday-Thursday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, **Chi Pham**, can be reached on **(703) 305-4378**.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Group receptionist whose telephone number is
(703) 305-4900.



Khai Tran
Patent Examiner

KT
February 3, 2003

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.